DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
ACQUISTION, LOGISTICS AND TECHNOLOGY
JOINT TACTICAL RADIO SYSTEM
JOINT PROGRAM OFFICE
1777 North Kent Street, Suite 2000
Arlington, Virginia 22209-2110

REPLY TO
ATTENTION OF

SAAL-JR

JAN 24 2005

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: JTRS POLICY 006; SCA and JTRS Certification

1. REFERENCE:

    a. Software Communications Architecture (SCA)
    b. Joint Tactical Radio System (JTRS) Operational Requirement Document
    c. JTeL Waveform SCA Test & Evaluation Plan
    d. JTRS Joint Test and Evaluation Master Plan (TEMP)

2. PURPOSE:

    This memorandum promulgates JTRS policy defining certification as it pertains to the SCA, JTRS, waveforms, operating environments, and JTR sets.

3. BACKGROUND:

    The JTRS program was initiated in order to overcome the serious problem of non-interoperability among radios within the Services, across the Services, and between U.S. Forces and Allied and Coalition partners. Early analysis determined that this objective could best be accomplished through the use of a family of software defined radio systems and a common, single source for each waveform (as defined in the JTRS ORD). It is essential these waveform implementations be developed such that they can be easily ported to any Joint Tactical Radio (JTR) set. This portability is to be achieved (in part) through the use of a standard Software Communications

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Architecture (SCA), reference (a). The JTRS Technology Laboratory (JTeL) is the test facility for SCA compliant JTRS waveforms and operating environments. Scheduling the JTeL test facility shall be coordinated through the JTRS JPO Test and Certification Division at 703-588-1074.

4. DEFINITION:

4.1 SCA certification signifies a product has been developed and built according to the requirements specified in the SCA. This requires successful completion of testing as specified in reference (c). The minimal level of certification will be to the SCA version 2.2.

4.2 JTRS certification signifies that JTRS products met the requirements of the JTRS ORD.

5. APPLICABILITY:

This policy applies to all JTRS acquisitions and procurements and any program that is directed, seeks or claims to be SCA/JTRS compliant.

6. POLICY:

6.1 All programs that require or seek SCA certification shall comply with the processes listed in reference (c) and the enclosure and summarized below. The only recognized SCA certification authority is the JTRS Program Director.

6.1.1 To achieve SCA certification, a waveform application or operating environment shall meet the following requirements:

- The waveform application or operating environment must conform to all applicable interfaces and requirements set forth in the SCA version to which it was built. The minimal level of certification will be to the SCA version 2.2.
- The developer must provide results of in-house SCA testing to demonstrate readiness for SCA certification testing.
- The waveform application or operating environment must successfully pass JTRS JPO standardized SCA testing (using JTRS test procedures and JTRS developed test tools reference (c)).

6.1.2 The waveform application or operating environment will be submitted to the JTRS JPO Test and Certification Division for SCA compliance testing. Interim feedback will be provided to appraise developer of any issues.

6.1.3 The JTRS JPO Test and Certification Division will convene a Certification Authority to review the JTeL test report recommendation and provide a recommendation to the JTRS Program Director.

6.1.4 The JTRS Program Director, in consultation with the JTRS Certification Authority, makes the final certification decision. A signed certificate of SCA certification will be sent to successful developers and listed on the JTRS web site.

6.2 All programs that require or seek JTRS certification shall comply with the processes listed in reference (d) and applicable acquisition documents as summarized below. JTRS certification applies to a radio set including the operating environment and waveforms that are SCA compliant; the radio set has a broad frequency range (e.g. 2 MHz – 2 GHz, 18-44 GHz, etc); and is capable of crossbanding between similar and diverse waveforms and network protocols used within the radio frequency spectrum and across service boundaries. The only JTRS certification authority is the JTRS Program Director. JTRS certification requires SCA certification.

6.2.1 JTRS Certification for JTR Sets includes JTel Government Development Testing, Specification Performance Testing, Joint Interoperability Test Command (JITC) Interoperability Lab Testing, and Security Testing.

6.2.1.1 JTeL Government Development Testing of waveforms includes the SCA Compliance testing, the Information Assurance (IA) assessment, the portability assessment, and the technical performance assessment.

6.2.1.2 Specification Performance Testing ensures the JTR set meets the ORD requirements and additional requirements as specified by the developer.

6.2.1.3 JITC Interoperability Lab Testing ensures the JTR Set with the waveforms integrated on the radio meets all waveform standards and interoperability requirements.

6.2.1.4 Under JTRS Security Testing, the JTR set must successfully demonstrate the appropriate degree of information protection and threat minimization including interoperability with firewalls and guards, where appropriate. The product will be tested to the degree which security services have been implemented.
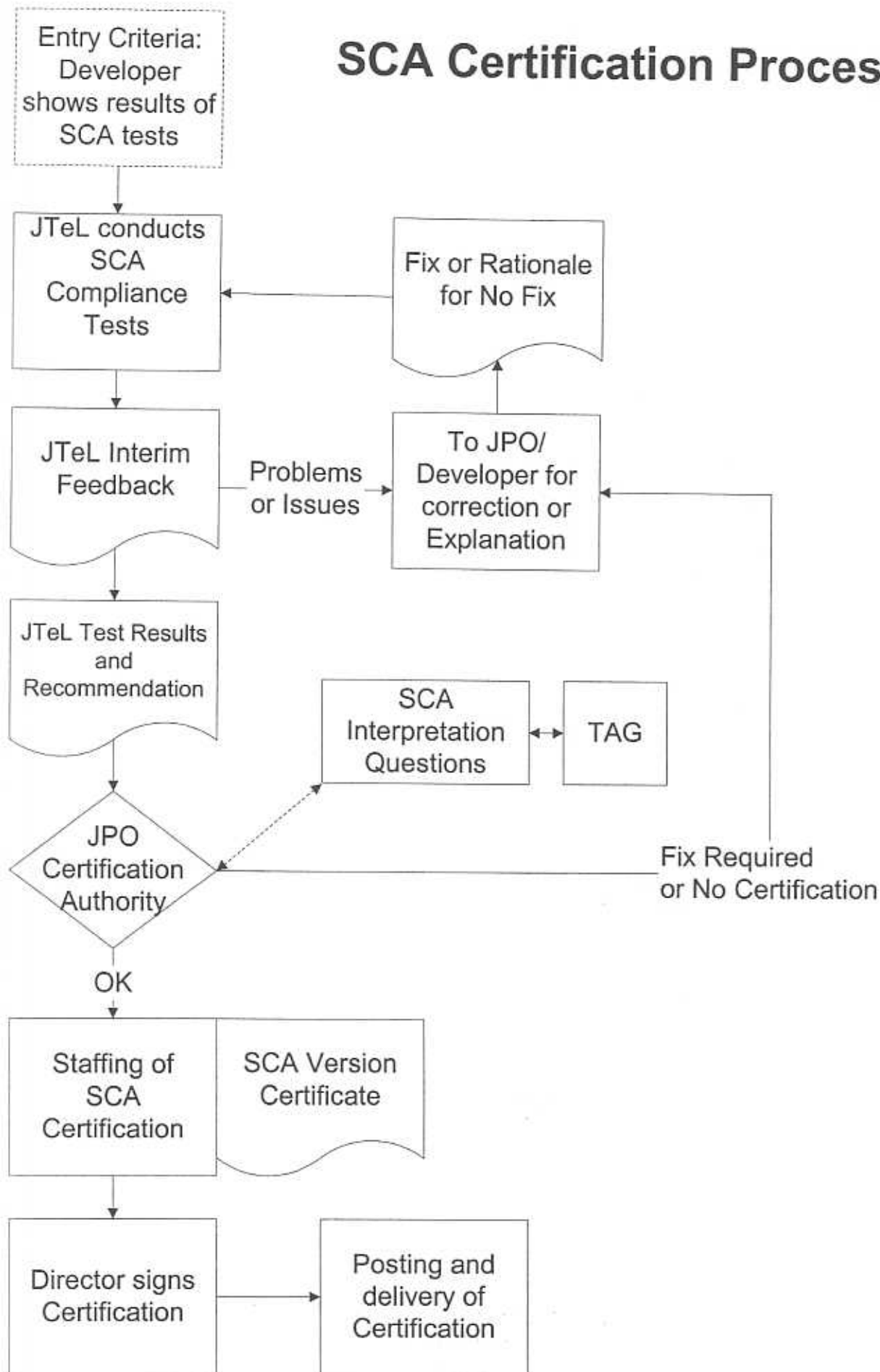
7. Point of contact is Major Katherine Ireland, Test and Certification Division Chief, katherine.ireland@hqda.army.mil, 703-588-1074.

Encl

STEVEN A. MACLAIRD, Col, USAF
Director, Joint Tactical Radio System
Joint Program Office

See Attached Distribution List.

SCA Certification Process

Entry Criteria: Developer shows results of SCA tests

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JTeL conducts SCA Compliance Tests

Fix or Rationale for No Fix

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JTeL Interim Feedback → Problems or Issues → To JPO/ Developer for correction or Explanation

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JTeL Test Results and Recommendation

SCA Interpretation Questions ↔ TAG

JPO Certification Authority

Fix Required or No Certification

OK

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Staffing of SCA Certification

SCA Version Certificate

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Director signs Certification → Posting and delivery of Certification

SCA Certification Process

Entry Criteria: Developer shows results of SCA tests	The Entry Criteria for the SCA Certification Process is for the Developer to show the results of their internal SCA Testing. For JTRS products, this will be done as part of Functional Qualification Test (FQT). For non-JTRS products, the test results must be submitted with the request for SCA Certification.
JTeL conducts SCA Compliance Tests	The JTRS Technology Laboratory (JTeL) will conduct their SCA Compliance Testing on the product. Tests include the Waveform Test Tool (WTT) for waveforms, JTRS Test Application (JTAP) for operating environments, and manual code inspection.
JTeL Interim Feedback	JTeL will provide early feedback (within 15 days) to either the JPO (JTRS products) or the developer (non-JTRS products) concerning any problems or issues discovered during the initial testing.
To JPO/ Developer for correction or Explanation	The JTeL Interim Feedback will be sent to the Developer (via the JPO for JTRS products) for either a correction to resolve discrepancies or an explanation for the issue (such as a different interpretation of the SCA). For non-JTRS products, the Developer can choose to remove the product from the certification process.
Fix or Rationale for No Fix	The Developer will provide (via the JPO for JTRS Products) updated code to correct the issues or their rationale for not changing the product.
JTeL Test Results and Recommendation	JTeL will complete their testing and submit a report to the JPO consisting of test results and their recommendation whether to certify the product.

JPO Certification Authority	A body representing the JPO and JTeL will examine the JTeL Test Results & Recommendation and adjudicate any remaining issues from the Developer. If issues or problems remain, the Developer should correct the code. For non-JTRS products, the Developer can choose to remove the product from the certification process.
TAG	Situations where JTeL and the Developer differ in their interpretation of the SCA will be submitted to the SCA TAG (Technical Architecture Group) for final resolution. Ambiguous requirements will be investigated by the TAG for a future SCA release.
Staffing of SCA Certification	If the Certification Authority recommends certification of the product, the SCA Certification document and/or a certificate will be staffed as appropriate to the JPO staff before submission to the Director for signature.
SCA Version Certificate	A document or certificate stating the Product name and the SCA version the product is certified to will be created for the Director's signature.
Director signs Certification	After the Director signs the certification, the certificate will be sent to the Developer and the product name will be added to a "SCA Certified Products" page on the JTRS web site. This certification will only be good for a specific version of the SCA (i.e. SCA 2.2, SCA 2.2.1, or SCA 3.0).